



# INSIGHT on Coinage

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EDITORIAL

Number 20

Last month I shared a new 2 dot 2 variety of the 1922 Grant Memorial half dollar with readers. I discovered this variety while recording its diagnostic die scratches for my records of genuine coins. Interestingly, this was also how I discovered the "Omega" \$20 High Relief and \$3 gold counterfeits as well as many of the other new varieties I have found! It's important to look closely at coins. Recording diagnostic markers in the form of die scratches has forced me to do this. At the least, you'll learn how small the difference is between coins with full luster and those with a slight amount of wear.

As a result of a story printed by Numismatic News about the dot variety of Grant half dollar, I received a letter from a man who found one of them in his collection (4 known so far) and a surprise letter from Kurt Kellogg with an unusual coin he has had in his collection for many years. It's the subject of this issue's NEW VARIETIES column. I'm thinking of forming a "Dots on Coins" Collectors Society!

At least one of my subscribers takes some of my advice to heart. He believes in acting on my suggestion that you do not believe everything you read in print. Occasionally he questions the things I relate in the pages of Insight. His latest question was regarding the "Die Scratch Method" of coin authentication. I promised to do an article this year to explore the development of the method and teach you some "tricks-of-the-trade". See Advice and Dissent below for Part 1; I just made it under the wire.

Most of the content of this issue has been inspired by the letters I have received from readers. I encourage any of you who have ideas or topics of interest to write. If your request has not appeared yet (I haven't forgotten the article on Proofs and Proof-like coins), please be patient.

Finally, I wish all of you a happy holiday season and I thank you for the support which makes this publication possible.

## ADVICE AND DISSENT

Those of you who originally answered one of my advertisements or saw a flyer at a coin show for one of my grading and/or authentication seminars may recall reading that I claim credit for developing the "Die Scratch Method" of coin authentication. With this article, I wish to retrace the process and thinking which led me to this method in hopes that my work will aid or inspire others to explore new techniques which may help advance the science of numismatic authentication.

I believe my ideas were developed subconsciously, before I

joined ANACS, from exposure to the research done by Sheldon and Newcomb for the identification of Large cent varieties. These men were able to identify cents which were struck from identical dies and note the progressive deterioration of the coins as the dies were used or finally broke. They were able to diagram changes in the die parings and identify dies which were kept in use for the following years. How was this possible you say? It's because both men had a good "eye-for-detail", and closely examined thousands of coins. I believe they viewed their work as a challenge - just like solving a jigsaw puzzle where each of their observations could be tested for "fit".

Most of the early information dealing with coin attribution or authentication was in the form of shape or positional variations of a coin's design elements (Style Method) or the presence of tool marks, die cracks, or other defects. We can still find this method used in modern numismatic reference books. For instance, "First 1 centered over a denticle. Second 1 close to bust" or "Tip of leaf centered under center of left upright of M." I shall credit Mr. Newcomb for my introduction to other markers on coins. When I looked up an 1851 over inverted 81 Large cent in his book, he described the "many light scratches in field below bust and back of head" which were characteristic of that die. Certainly, coiners, engravers, Mint technicians, and other numismatists (Sheldon and Newcomb?) were aware that polishing a coin's die could leave traces on a coin in the form of many fine scratches or even lost design detail (3-legged Buffalo); yet, this information was not as universally known to collectors as it is today. I had never heard about die scratches or die polishing until joining ANACS. Their presence on coins was often noted as, "fine line connects leaf tip with the bottom of the 'P' in 'United'; but the lines were probably not fully appreciated as die markers, because as a coin became worn, the fine die scratches were the first of its markers to disappear. Conversely, the position of a leaf in respect to one of the letters of its legend could be seen on the lowest grade coins!

The illustration and description at right is from Newcomb's book on Cents. It shows the treatment he gave one of the reverses of 1849. Years later, I would learn what caused these marks on coins and apply them as an alternative method of coin authentication at the ANACS Lab in Washington. I also was the first to teach this



1849-21

Reverse. Many fine lines slanting to left in center of wreath and a few vertical lines through E to tops of NT. See Nos 6 and 22.

Worn dies show a triangular defect near border between seventh and eighth stars; lines on reverse do not now show.

"new" way of authenticating coins to students at the ANA Summer Seminar. Later, my techniques were carried to Colorado by John Hunter when the ANA Certification Service lab was moved; and disseminated in seminars by the ANA, and also by this writer through INS, IAPN, and NNNA.

I often say, "There are no secrets to coin authentication". All that is needed is a desire to learn about coins, a critical "eye-for-detail", a skeptical mind which requires "proof" before accepting an opinion as fact, a stereo microscope, a fluorescent light, and a camera or notebook to record observations and diagnostics. Certainly, this description does not describe a walking coin-hoarder or the typical hole-plugger.\* It also doesn't describe many of the true numismatists who laid the groundwork for my method. The thought of a Sheldon or Newcomb using a microscope to examine a large cent is preposterous! That's because the science of coin authentication was NOT YET this refined.

In the early 1970's, I was fortunate to join the staff of the American Numismatic Association Certification Service as a clerk...actually I had been collecting coins for years before I even heard of the ANA. My first contact came after the purchase of a twenty-five year collection of The Numismatist magazine. As I read each issue, two groups of articles captured my interest, those on numismatic research or varieties, especially overdates and the articles on authentication - specifically a column called Featuring Fakes. My purchase of an 1851/81 Large cent which was unattributed and overlooked by others on a bid board, led to a small collection of overdate cents which was assembled only from purchases of other unattributed coins. This is called "Cherry-picking"; it's a wonderful way to collect on a budget. Unfortunately, it's harder to do today because of the depth of research which has been published on coins lately. My purchases also introduced me to the research of Newcomb and others which I have written about.

During this same period, the articles on counterfeits led me down another path. I saved every "Featuring Fakes" column ever written. In retrospect, they were very entertaining to read but not very informative. Any recently published ANA Certification Service article contains more useful information than a years worth of these articles BUT you must understand that coin authentication was in its infancy when they were written; and we owe a tremendous debt to the pioneering watchdogs who scared our entire hobby into an awareness of the problem with fakes! Without their efforts, the ANA Certification Service might still be a gleam in someone's eye. Certainly, my life would have been much different.

I was never in danger of purchasing fakes because I didn't have the money to be buying key date coins or gold. I concentrated on the cheap coins in "super" condition. The difference in price between an Uncirculated 1881-S dollar (MS-60 to 63) and a Proof-like MS-66 may have been a few dollars but not many people I knew, including dealers, cared that much. I learned what natural luster

\* I shouldn't be contemptuous of these collectors. They make up 90% of the millions who call themselves coin collectors and they are the backbone of our hobby; yet I'm disappointed that they don't pursue numismatics to its fullest. That's their choice!

looked like and avoided the coins sold by one dealer who scrubbed every coin with toothpaste to make them bright. Coins with added mint marks and whizzing were big problems. The Style and Metrology Methods were the main techniques used to detect counterfeit coins. One method relied on the "look" of a coin and the other involved measurements of its dimensions, weight, specific gravity, etc. At the time, experts taught that casting was the principle method of making fakes but as I look back on those days, I realize that the era of struck counterfeits had actually begun! The products of the counterfeiters were of such crude manufacture that they looked like they were cast coins to many of the "Ex-Perts"!

As I've reported in past articles, my first duties at ANACS, consisted of opening packages, weighing, and photographing coins for the internal records of the office. I was also required to measure and record the specific gravities of coins as needed. As the work load at the office decreased with additional staff and the turn-around time dropped, I began to have more time to look at the coins we received. I can vividly remember being asked to come inside the laboratory section of the office one day for my first authentication lesson (See Insight #13,14). There I was shown the difference between the design (Style Method) of two three dollar gold coins - one an obvious fake because of its crude (to experts) style. Later, during another lesson, I was instructed on the proper shape ("style" again) of the mint mark used on coins dated 1909 and later which were made in San Francisco. By knowing what the genuine mint mark looked like, 90% of the fakes could be easily identified. Such was the state of the science of authentication in the early 1970's.

[In another article, I'll write about the changes I saw in the evolution of fake coins which made the older detection methods by measurement obsolete and which were even beginning to challenge the style method I was being taught!]

Most coins received at ANACS were authenticated "in house". Additionally, since its inception, ANACS had relied on a number of outside coin consultants, mostly dealers, for their opinions on difficult U.S. and most foreign coins. Occasionally, some of the most difficult coins were held at ANACS until a large enough group had been accumulated to warrant a trip to the Smithsonian Museum or to one of the outside labs in our area which had more sophisticated scientific instruments.

When I first began my authentication training, there were four or five low grade 1893-S Morgan dollars which had been waiting in such a group for several months. The condition of the coins had caused their mint marks to become crushed down or damaged so that it was impossible to use their shape (style) for authentication or even to examine their bases for the signs that they had been added. The director had been planing to take this group to a laboratory

NOTE: Modern authenticators now realize that these characteristics (crumbled mint marks) are usually a sign that the coin is genuine and has been in normal circulation.

with an electron microprobe in order to determine if the coins were real or altered. The test was fairly simple. If the technician could detect any of the metals used in solder, such as lead, around the area of the mintmark, the coin was considered to have an added mint mark.

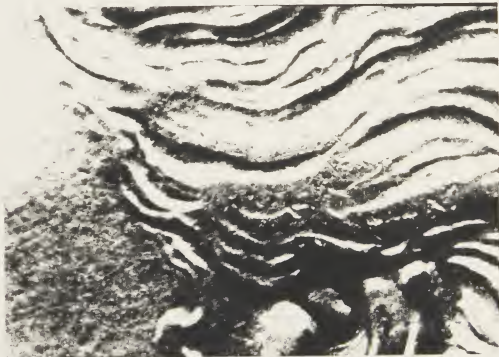
One day as a lark, I took all the 93-S dollars and placed them around my microscope - so they would not get switched while I examined them for any style differences! The coins ranged in grade from AG-3 to Fine-12, so there was not much that could be done in that regard. End of that idea, now I understood why the coins had been sitting around so long. A few weeks later, we received an About Uncirculated 1893-S dollar for certification. It was 100% authentic but instead of returning the coin immediately I asked to hold it back as a comparison specimen to help authenticate the low grade coins! I placed the AU to one side of the scope and arranged the circulated coins on the other. By holding a circulated dollar in one hand, and the Unc~~in~~, the other, I could compare the coins yet insure none of the coins would get switched. First, I studied the high grade coin, then I examined one of the low grade coins. I kept switching back and forth, high grade, low grade, but I could not find any similarities. Next, I repeated the operation while using another of the low grade coins. This was becoming a waste of time. Authenticating the low grade 93-S dollars was going to be much more difficult than I had imagined. The feeling of scorn I had first experienced when I learned that five of these coins had remained at the lab for months - without opinion, rapidly gave way to puzzlement, understanding, and later panic! If the Director had not been able to certify these coins, how could I? Now that I was part of ANACS, his dilemma was also mine! To be continued...

#### MICROSCOPICALLY SPEAKING

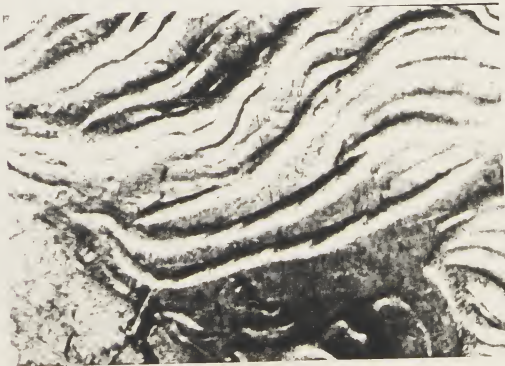
As many of you know, lately I have spent a good deal of time at the Photo Certified Coin Institute as a consultant on coin authentication. In all the weeks I have been there, it seems remarkable to me that I have seen so few coins with altered dates or mint marks, especially considering the huge volume of coins they receive. Perhaps there have been half a dozen 16-D dimes, a dozen 1909-S VDB cents and three or four various other coins. No 32-D or S quarter alterations and only a 93-S Morgan dollar with an added mintmark! Where are all the altered coins?

I believe the fakers have moved to a more subtle area of alterations. Chemical alterations of a coin's surfaces to raise its eye appeal; and, as I've reported in my Numismatic News column this December - alterations to a coin's design. I have seen more of this type alteration in the last several months than in my entire 20+ year career as an authenticator! I down-played the proportions of the problem in my column (for now) but you should be aware of how wide-spread these fakes are. I have spoken to several coin dealers who think these "enhanced" coins should be slabbed but at a lower grade than they would be without the added detail! The photo-micrographs (photograph taken through a microscope) on page 6 show the hair detail on two 1894-O Morgan dollars.

The top photo shows the hairlines above the ear on the unaltered coin while two hairlines on the coin in the lower photo have been added to the flatly struck area above the ear on another coin to give the appearance of a better strike (grade/MONEY)!



The dealer who owned the altered coin refused to believe his coin was bad even when presented with this evidence so the coin will surely appear on the market again. Note the repeating pattern from the tiny punch used to make the hairlines on the altered coin.





## NEW VARIETIES

Just last month, I discovered a 1931-S doubled die obverse dime, a 1905 doubled die reverse Indian cent, and several other varieties which I will report on in future issues. I tell you about these because the 31-S was already known and my photo of the 1905 (unlisted!) was overexposed and useless for publication. Just because the photo was ruined is no reason for you not to start looking for this variety, especially since there is good collector interest in cents. Prices paid for Indian cent varieties should increase as more people purchase Snow's new reference. The doubling is most noticeable on the outside of the left wreath and the veins of the leaves in the top right wreath are strongly doubled.

The photograph came from a roll which was overexposed! I will eventually iron out the problems with some of the new photo equipment I've been using but this one should be good enough to print. You are looking at the reverse of a 1947-D Jefferson nickel at 25X. A man-made dot which is visible to the naked eye is on the coin between the letters "M" and "O" of Monticello. Kurt Kellog found the coin in circulation several years ago and thought it was interesting enough to keep. So do I, but I can't think of any reason to mark the die. Perhaps the engraver who was punching in the mint marks decided to put his own "private" mark on the die - his chance for immortality. This is not as far fetched as it sounds. I have records of a number of "marked" dies or secret marks put on the dies or hubs of genuine coins. These marks are also found on stamps. A few years ago a stamp was released on which the designers hidden mark had gone undetected until discovered by a collector with an "eye-for-detail".

This should make my point. Start to examine coins more closely - even the ones which are already in your collection. You may be amazed at what you find.

20X view of dot  
on reverse of a  
1947-D Jefferson  
nickel.



## MARKET NOTES

A few words of caution for those of you who buy coins at coin shows held in large convention centers with the mercury vapor ceiling lights - BE VERY CAREFUL. I have read warnings from others about this type of lighting before; but the dangers of this lighting really hit home last month when I was asked to give my opinion on the grade of five Mercury dimes which were in the slabs of three different third-party grading services (the grades were covered with tape). I take pride in the fact that I can usually guess the grade of the slabbed coin, the grade my student thinks the coin should be, and the grade that the other services would have assigned to the same coin! Not this time. Using the ceiling lights alone, all five coins looked like blazing, white satin gems. Even with a hand lens they all looked like MS-65's. The actual grades assigned to the coins were: AU-58, MS-60, MS-64PQ, MS-67, and MS-67! I couldn't believe my eyes. I examined each coin with a stereo microscope set at 10X and still had difficulty telling the difference. It became necessary to place my microscope and a fluorescent light INSIDE a large box to shield it from the overhead lighting before I could distinguish any of the major differences between the coins including the small trace of wear on the AU-58 and MS-60. One grading service's MS-64PQ was the equal in all respects (luster, strike, marks, and eye-appeal) to the MS-67 coins of the other two grading services! That same service graded the two other dimes with an identical amount of rub as AU-58 and MS-60. What gives? As I explained to the owner of the coins, the AU-58 was graded correctly while the MS-60 was a gift. These days there are few MS-60 coins in slabs, most MS-60's (with dull luster or without bag marks) are sliders but the coins are worth more than AU-58 money. This causes problems for commercial grading services who must please the buyer and seller yet be fair to the coin. I felt the MS-64PQ was graded too conservatively. It should have been graded MS-65; but the other two coins, both graded MS-67 were errors! Both coins had far too many marks and closely matched the MS-64PQ which I thought was better than one of the MS-67's. The collector had a true dilemma. Why should he send coins to the service which was too strict when he could have his coins graded up two three points higher some place else! He was right. I would do the same. The coins could be sold for more money to "plastic buyers".

I want to stress that there are some fantastic coin bargains in slabs. All of the grading services over grade, under grade, and grade correctly on a regular basis. Buy the coin, not the plastic grade and remember to WATCH THE LIGHTING.

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